

<u>Name</u>	(Last digit) <u>Student #</u>
Stacy Bettinghouse	8
Wiley Duvall	7
Gabriel Price	0
Troy Walker	8
Asia Brown	1
Brenda Tule	5
Julie Barrons	2
Preetai Patel	2
Phong Pham	0
Jeanna Droscha	2
Ragayah Muhammad	0

$$\bar{x} = 3.18$$

$$s = 3.22$$

① Population  $\mu = 4.5$   
 $\sigma = 2.87$

② Sample  $\bar{x} = 3.18$   $s = 3.22$   
 $\downarrow$   $\downarrow$   
 est.  $\mu$   $\downarrow$  est.  $\sigma = 2.87$   
 $\mu = 4.5$

$$MOE = 1.96 \left( \frac{3.22}{\sqrt{11}} \right) = 1.90$$

TOSS 2  
COINS

$X = \#H$  IN 2 TOSSES  $E X = 1$   
 $\sigma_x = 0.707$

Stacy  
Bettinghouse,  
SECT. 202

#1	TOSS #	(COIN 1) result	(COIN 2) result	Score
	1	H	H	2
	2	T	T	0
	3	H	H	2
	4	T	H	1
	5	H	T	1
	6	H	H	2
	7	T	H	1
	8	T	T	0
	9	H	T	1
	10	T	H	1
	11	T	T	0
	12	T	H	1
	13	H	H	2
	14	T	T	0
	15	T	T	0
	16	T	T	0
	17	T	T	0
	18	T	T	0
	19	H	T	1
	20	H	H	2
	21	T	H	1
	22	H	T	1
	23	H	T	1
	24	H	T	1
	25	T	H	1
	26	H	H	2
	27	T	T	0
	28	T	T	0
	29	H	H	2
	30	T	H	1

68% CI.  $\bar{x} \pm (1) \frac{\sigma}{\sqrt{n}}$

COMPARE  
 $\bar{x}$  WITH  
 $\mu = 0.707$

$\bar{x} = .9$

$S = .758$

M.O.E = .271

$-.14 - .395$  (95% confidence interval)

$.138$  : estimate of S.D of  $\bar{x}$

$.762 - 1.038$  (68% interval)

COVERS  $\mu$

	n=30	$\bar{x}$	S	$S/\sqrt{30}$	M.O.E	68% interval
Gabriel	34/30	1.13	.4835	.088	.172	1.13 ± .088
Stacy	27/30	.9	.758	.138	.271	.115 - 1.685 ✓
Brenda	39/30	1.3	.596	.1088	.213	1.3 ± .1088
Cristina	30	<del>1.03</del> 1.03	<del>.718</del> .718	.148	.290	.882, 1.17 ✓
Phong	30	1.06	.739	.134	.264	.925, 1.194 ✓
Troy	30	1.03	.811	.148	.290	.882, 1.17 ✓
Torey	30	.8667	.718	.131	.04169	.0032 - .044
Rugayyan	30	1.13	.730	.133	.2606	.997 - 1.263 ✓
Breeta	30	.727	<del>.718</del> .718	.132	.2601	1.06 ± .1327 ✓
Jeanna	30	.6397	.639	.1168	.2239	.9502, 1.18 ✓
Julie	30	.833	.698	.128	.25	.705, .961
ASIA	30	.9	.604	.1108	.219	.474, 1.32 ✓
MILK	30	.96	.666	.120	.2352	.84, 1.08 ✓

.68(13) ~ 9  
 SO AROUND 9 OF 13  
 68% CI SHOULD  
 COVER  $\mu$ .

9 of 13  
 intervals  $\pm (1) / \sqrt{30}$   
 COVER  $\mu = 1$

EVEN THOUGH  $\bar{x}$  AND  $S$  VARY AROUND  
 $\mu, \sigma$ , THE OVERALL .68 PROBABILITY  
 OF CI COVERING  $\mu$  HELD TO ~ .68.